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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,613	07/03/2001	Hidetoshi Honbo	503.34465VV4	1835
20457	7590	04/21/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			MAPLES, JOHN S	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,613

Applicant(s)

HONBO ET AL.

Examiner

John S. Maples

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on February 5, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-15, 17-21, 24, 32 and 33 ~~is/are~~ are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15, 17-21, 24, 32 and 33 ~~is/are~~ are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 13-15, 17-21, 24 and 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Takami et al. (Takami) (New Rejection with regard to claims 32 and 33)

Reference is made to column 2, lines 3-28 of Takami along with column 5, lines 50-64; column 12, lines 10-31; column 13, lines 59-column 14, line 43; column 16, lines 17-64 and Example 27. In these portions, and especially in columns 13 and 14, Takami discloses the hexagonal crystal structure of the graphite negative electrode and for the particle size thereof being in a range of less than 100 microns. As is well known in the art, there is at least a 3% amount of rhombohedral crystal structure present in the hexagonal graphite crystal negative electrode, which amount meet the claimed amount. In any event, applicant has used a lower range of 0% for the amount of rhombohedral crystal structure present in the anode graphite material in most of the claims and thus a teaching of crystal graphite anode material absent rhombohedral type structure would meet the claimed subject matter. In addition, it is inherent in the teachings of Takami that the capacity for the graphite crystal powder would be at least 320 mAh/g because this reference teaches the same material so that its capacity would be the same as set forth in the present application.

Applicant's arguments have all been considered but are not deemed persuasive.

Applicant argues that the graphite in Takami is not of a hexagonal crystal structure. The examiner respectfully disagrees. More specifically, applicant argues that Takami teaches a

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structure having hexagonal-net-plane layers and that this disclosure is not a hexagonal crystal structure of the graphite negative electrode material. The applicant further states that Takami teaches a laminated condition of carbon sheets, which structure does not meet applicant's presently claimed structure.

The examiner traverses applicant's position that Takami does not teach a hexagonal crystal structure of the anode. First of all, columns 13 and 14 of Takami, as outlined above teach a crystallite of the graphite anode material. More specifically, column 14, lines 30-43 set forth the carbonaceous material of a crystallite structure in a hexagonal-net-plane layer. This language meets applicant's claimed subject matter of an anode hexagonal crystal structure. Even if the hexagonal crystal structure is in a laminated condition of carbon sheets, the sheets still are made up of a hexagonal crystal structure, thus meeting the claimed subject matter. In addition, the examiner consulted an expert examiner in the carbon field within the Patent Office and he stated that Takami discloses hexagonal crystal structure for the anode.

Applicant further argues that Takami does not have high crystallinity and has minimum twisted structures unlike applicant's structure. This may be true, to some degree, however, applicant has not included claim language that covers these further limitations and thus applicant's arguments relating to these points are deemed moot.

It is noted that applicant has not argued either the assertion that all carbon crystal material includes at least 3% rhombohedral crystal structure and that because Takami sets forth the same carbon crystal material as applicant that it is inherent that the same would have the same capacity as applicant has claimed.

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3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

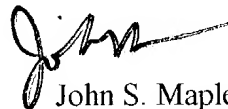
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday-Thursday from 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John S. Maples
Primary Examiner
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JSM/4-19-2004